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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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09/833,391

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Curtis Lee Carrender

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06/16/2004

SEED INTELLECTUAL PROPERTY LAW GROUP PLLC  
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EXAMINER

NGUYEN, PHUNG

ART UNIT

PAPER NUMBER

2632

DATE MAILED: 06/16/2004

14

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

09/833,391

Applicant(s)

CARRENDER, CURTIS LEE

Examiner

Phung T Nguyen

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 09 April 2004.  
2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.  
3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1,2,4-8 and 10-24 is/are pending in the application.  
4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.  
5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.  
6) ☒ Claim(s) 1,2,4-8, and 10-24 is/are rejected.  
7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.  
8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.  
10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).  
11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☐ All b) ☐ Some \* c) ☐ None of:  
1. ☐ Certified copies of the priority documents have been received.  
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☐ Notice of References Cited (PTO-892)  
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)  
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_.  
4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_.  
5) ☐ Notice of Informal Patent Application (PTO-152)  
6) ☐ Other: \_\_\_\_\_.

## DETAILED ACTION

### *Claim Rejections - 35 USC § 103*

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 1, 2, 4-8, and 10-24 are rejected under 35 U.S.C. 103(a) as being unpatentable over Nysen [U.S. Pat. 6,107,910].

**Regarding claim 1:** Nysen discloses dual mode transmitter/receiver and decoder for RF transponder tags which comprises all subject matter as follows:

- a. a frequency-hopping source configured to sequentially generate radio-frequency signals at pseudo-randomly selected frequencies (col. 31, lines 60-67, and col. 37, lines 35-38);
- b. a transmitter 10 coupled to the frequency-hopping source and to an antenna circuit (figure 49, col. 38, lines 1-34);
- c. a heterodyne receiver coupled to the antenna circuit and configured to receive on the antenna circuit reflected radio-frequency signals from the RFID tag (col. 37, lines 42-46);
- d. a signal processor 632 (figure 49, col. 38, lines 26-45) wherein the signal processor is configured to receive the reflected radio-frequency signals and to extract data contained within the reflected radio-frequency signals;
- e. Nysen teaches only one antenna as shown in figure 49. However, Nysen also teaches in one embodiment of using two antennas 16, and 26 as shown in figure 1, col. 12, lines 45-54, and

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col. 13, lines 13-19). Therefore, it would be obvious to the skilled artisan to use it in order to transmit the radio-frequency signals on the first antenna and to receive the reflected radio-frequency signals on the second antenna so that the communication speed is increased. Nysen also teaches the claimed a divider circuit met by phase generator 605 (figure 29, col. 38, lines 26-29).

**Regarding claim 2:** Nysen teaches the heterodyne receiver (col. 37, lines 42-46).

**Regarding claim 4:** Nysen teaches the low-noise amplifier 608 is configured to amplify the received reflected radio-frequency signals (col. 35, lines 59-67).

**Regarding claim 5:** Nysen teaches the frequency-hopping source is configured to sequentially generate radio-frequency signals at regular time intervals (col. 36, lines 30-40).

**Regarding claim 6:** Nysen teaches the transmitter is configured to modulate the pseudo-randomly selected radio-frequency signals (col. 31, lines 54-62).

**Regarding claim 7:** All the claimed subject matter is already discussed in respect to claim 1 above. Nysen teaches the RFID interrogator (col. 36, lines 30-40).

**Regarding claim 8:** Refer to claim 2 above.

**Regarding claim 10:** Refer to claim 4 above.

**Regarding claim 11:** Refer to claim 5 above.

**Regarding claim 12:** Refer to claim 1 above. Nysen also teaches storing data in the RFID tag (col. 9, lines 49-54).

**Regarding claim 13:** Refer to claim 1 above. Nysen also teaches modulating the reflected radio-frequency signal based on the data extracted at the RFID tag device (col. 9, lines 49-67).

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**Regarding claim 14:** All the claimed subject matter is already discussed in respect to claim 1 above.

**Regarding claim 15:** the claimed limitation is already discussed in claim 1 above.

**Regarding claim 16:** Refer to claim 4 above.

**Regarding claim 17:** Nysen teaches modulating the pseudo-randomly selected radio-frequency signals prior to transmission (col. 31, lines 54-67).

**Regarding claim 18:** Nysen discloses an RFID interrogator configured to generate and transmit pseudo-randomly selected radio-frequency signals over time and to receive, using a heterodyne reception technique, modulated radio-frequency signals reflected from the RFID (col. 31, lines 54-65, and col. 37, lines 36-49). Nysen teaches a backscatter signal (col. 4, lines 66-67, and col. 5, lines 1-5). Nysen does not specifically show continuous-wave backscatter as claimed. However, it would be obvious to the skilled artisan to recognize that the phase modulated backscatter signal of Nysen is the continuous-wave backscatter.

**Regarding claim 19:** Nysen teaches the frequency-hopping source configured to generate the pseudo-randomly selected radio-frequency signals (col. 37, lines 36-39).

**Regarding claim 20:** Nysen teaches the passive RFID tag device (col. 4, lines 66-67).

**Regarding claim 21:** Refer to claim 1 above.

**Regarding claim 22:** Nysen teaches modulating the pseudo-randomly selected transmitted radio-frequency signals and the RFID device is configured to extract data from the transmitted signals (col. 32, lines 11-24).

**Regarding claim 23:** Nysen teaches storing data in the RFID tag (col. 9, lines 49-54).

**Regarding claim 24:** Nysen teaches modulating the reflected radio-frequency signal based on the data extracted at the RFID tag device (col. 9, lines 49-67).

***Response to Arguments***

3. Applicant's arguments with respect to claims 1, 2, 4-8, and 10-24 have been considered but are moot in view of the new ground(s) of rejection.

***Conclusion***

4. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Phung Nguyen whose telephone number is (703)308-6252. The examiner can normally be reached on Monday to Friday from 8:00am to 5:30pm.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Daniel Wu, can be reached on (703)308-6730. The fax phone number for this Group is (703) 872-9314.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Group receptionist whose telephone number is (703) 306-0377.

Examiner: Phung Nguyen

  
**BENJAMIN C. LEE**  
**PRIMARY EXAMINER**

Date: June 9, 2004